

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims in accordance with the following:

1. (CANCELLED)

2. (CANCELLED)

3. (CURRENTLY AMENDED) A resource adjustment apparatus for adjusting an amount of computer resources used in a system having a plurality of modules each comprising at least one application program, the resource adjustment apparatus comprising:

a storage device ~~storing that stores~~ data representing ~~a transition of a past transaction occurrence amount~~ and an amount of resources of a module used in the past over a period of time, for each of the plurality of modules, ~~wherein the transaction occurrence amount indicates an offered load and the transition of the past transaction occurrence amount represents a variation of measurement values of the~~ includes a past transaction occurrence amount over a period of time and a past transaction processing amount;

a generation device ~~obtaining data representing the transition of the~~ that performs an operation including:

obtains past transaction occurrence amount of a target module of the modules from the storage device, ~~generating respective,~~

generates transitions of the ~~[[past]]~~ transaction occurrence amount ~~[[in]]~~ of the target module for each of a plurality of types of different cycles using the data representing the transition of the ~~based on obtained~~ past transaction occurrence amount of the target module, displaying the generated transitions in the plurality of types of cycles on a screen, ~~generating a transition of a,~~

generates a predicted transition of transaction occurrence amount of the target module in a specific cycle ~~[[units]]~~ unit by superposing combining the generated transitions of the ~~past transaction occurrence amount in first and second types of~~ corresponding to two or more

~~different cycles selected by an operator from among [[the]] a plurality of types of cycles,~~
~~generating a~~

~~generates an approximate function that expresses a correlation between measurement values of a past a transaction processing amount and measurement values of a corresponding past use resource amount of the target module, wherein the obtained data representing the transition of the past transaction occurrence amount is used as values of the past transaction processing amount in the function, and generating a transition of the past use resource amount by applying the function to the transition of the predicted transaction occurrence amount of the target module, the transition of the past use resource amount indicating a variation of the past use resource amount over a period of time a required resource amount, based on correspondence between the past transaction processing amount and the amount of resource used in the past corresponding to the target module stored in the storage device, and~~

~~generates a predicted transition of the required resource amount by substituting the transaction occurrence amount of the target module corresponding to the predicted transition of transaction occurrence amount for the transaction processing amount of the approximate function; and~~

~~an allocation device using the generated transition of the past use resource amount as a transition of a predicted use resource amount and automatically fluctuating that fluctuates an allocation of resource amount of the target module in accordance with the transition of the predicted [[use]] transition of the required resource amount, and~~

~~wherein the generation device generates transitions of a mean value and a maximum value of transaction occurrence amounts regarding at least two modules in each of the plurality of types of cycles in the system, displays the generated transitions on the screen, superposes the transitions of transaction occurrence amounts in the first and second types of cycles using the mean value or the maximum value selected by the operator, and generates the transition of the predicted transaction occurrence amount.~~

4. (CURRENTLY AMENDED) A computer-readable storage medium storing a program for a computer adjusting an amount of computer resources used in a system having a plurality of modules each consisting of including at least one application program, wherein the program causes the computer to perform an operation, comprising:

~~obtaining data representing a transition of a past transaction occurrence amount of a~~

target module of the plurality of modules from a storage device storing that stores data representing the transition of the a past transaction occurrence amount and an amount of resources of a module used in the past over a period of time, for each of the plurality of modules, wherein the ~~transaction occurrence amount indicates an offered load and the transition of the past transaction occurrence amount represents a variation of measurement values of the~~ includes a past transaction occurrence amount over a period of time and a past transaction processing amount;

generating respective transitions of the ~~[[past]]transaction occurrence amount [[in]]of the target module for each of a plurality of types of different cycles using the data representing the transition of the~~ based on obtained past transaction occurrence amount of the target module;

displaying the ~~generated transitions in the plurality of types of cycles on a screen~~;

generating a transition of a predicted transition of transaction occurrence amount of the target module in a specific cycle [[units]]unit by superposing combining the generated transitions of the past transaction occurrence amount in first and second types of corresponding to two or more different cycles selected by an operator from among [[the]]a plurality of types of cycles;

generating ~~[[a]]an approximate~~ function that expresses a correlation between ~~measurement values of a past a transaction processing amount and measurement values of a past use resource amount of the target module and using the obtained data representing the transition of the past transaction occurrence amount as values of the past transaction processing amount in the function~~ a required resource amount, based on correspondence between the past transaction processing amount and the amount of resource used in the past corresponding to the target module stored in the storage device;

generating a predicted transition of a past use resource amount by applying the function to the transition of the predicted transaction occurrence amount of the target module, the transition of the past use resource amount indicating a variation of the past use resource amount over a period of time the required resource amount by substituting the transaction occurrence amount of the target module corresponding to the predicted transition of transaction occurrence amount for the transaction processing amount of the approximate function; and

using the generated transition of the past use resource amount as a transition of a ~~predicted use resource amount and automatically fluctuating an allocation of~~ resource amount of the target module in accordance with the transition of the predicted [[use]]transition of the required resource amount, wherein

~~the generating the transition of the predicted transaction occurrence amount generates~~

~~transitions of a mean value and a maximum value of transaction occurrence amounts regarding at least two modules in each of the plurality of types of cycles in the system, displays the generated transitions on the screen, superposes the transitions of transaction occurrence amounts in the first and second types of cycles using the mean value or the maximum value selected by the operator, and generates the transition of the predicted transaction occurrence amount.~~

5. (CURRENTLY AMENDED) The storage medium according to claim 4, wherein the program causes the computer to perform:

displaying the ~~generated~~predicted transition of the ~~past-use~~required resource amount on a screen; and

when the operator changes the displayed transition of the ~~past-use~~required resource amount, using the changed transition of the ~~past-use~~required resource amount as the predicted transition of the ~~predicted-use~~required resource amount.

6. (CURRENTLY AMENDED) The storage medium according to claim 4, wherein the program causes the computer to perform:

~~obtaining data that represents a transition of a most-recent transaction occurrence amount of the target module from the storage device;~~

using a predicted transition of a ~~use the~~ required resource amount generated by the transition of the most-recent transaction occurrence amount as a transition of a ~~immediately-after~~ predicted ~~[[use]]transition of an immediately-after~~ required resource amount; and

fluctuating an ~~immediately-after~~ allocation of immediately-after resource amount of the target module.

7. (CURRENTLY AMENDED) The storage medium according to claim 4, wherein the program causes the computer to perform:

preferentially allocating resources to the target module during a period since a ~~[[use]]required~~ resource amount of the target module reaches a predetermined bottleneck detection threshold until a ~~[[use]]required~~ resource amount of the target module reaches a bottleneck elimination threshold.

8. (PREVIOUSLY PRESENTED) The storage medium according to claim 4, wherein

the program causes the computer to perform:

preferentially allocating resources to the target module during a period since a transaction occurrence amount of the target module reaches a predetermined bottleneck detection threshold until a transaction occurrence amount of the target module reaches a bottleneck elimination threshold.

9. (CURRENTLY AMENDED) The storage medium according to claim 4, wherein the program causes the computer to perform:

instructing the target module to generate a child processing when a ~~predicted use~~ required resource amount of the target module reaches a predetermined amount.

10. (CURRENTLY AMENDED) The storage medium according to claim 4, wherein the program causes the computer to perform:

displaying a screen for capacity planning support including a predicted transition of a use ~~the required~~ resource amount that is predicted for a long time.

11. (CANCELLED)

12. (CURRENTLY AMENDED) A resource adjusting method adjusting an amount of computer resources used in a system having a plurality of modules each comprising at least one application program, the resource adjusting method comprising:

~~obtaining data representing a transition of a past transaction occurrence amount of a target module of the plurality of modules from a storage device storing that stores data representing the transition of the a past transaction occurrence amount and an amount of resources of a module used in the past over a period of time, for each of the plurality of modules, wherein the transaction occurrence amount indicates an offered load and the transition of the past transaction occurrence amount represents a variation of measurement values of the includes a past transaction occurrence amount over a period of time and a past transaction processing amount;~~

~~generating respective transitions of the [[past]]transaction occurrence amount [[in]]of the target module for each of a plurality of types of different cycles using the data representing the transition of the based on obtained past transaction occurrence amount of the target module;~~

~~displaying the generated transitions in the plurality of types of cycles on a screen;~~

get module in a specific cycle ~~[[units]]unit~~ by ~~superposing-combining~~ the generated transitions of the past transaction occurrence amount in first and second types of corresponding to two or more different cycles selected by an operator from among ~~[[the]]a plurality of types of cycles;~~

generating ~~[[a]]an approximate~~ function that expresses a correlation between measurement values of a past a transaction processing amount and measurement values of a past use resource amount of the target module and using the obtained data representing the transition of the past transaction occurrence amount as values of the past transaction processing amount in the function a required resource amount, based on correspondence between the past transaction processing amount and the amount of resource used in the past corresponding to the target module stored in the storage device;

generating a predicted transition of a past use resource amount by applying the function to the transition of the predicted transaction occurrence amount of the target module, the transition of the past use resource amount indicating a variation of the past use resource amount over a period of time the required resource amount by substituting the transaction occurrence amount of the target module corresponding to the predicted transition of transaction occurrence amount for the transaction processing amount of the approximate function; and

using the generated transition of the past use resource amount as a transition of a predicted use resource amount and automatically fluctuating an allocation of resource amount of the target module in accordance with the transition of the predicted ~~[[use]]transition of the required resource amount, wherein~~

~~the generating the transition of the predicted transaction occurrence amount generates transitions of a mean value and a maximum value of transaction occurrence amounts regarding at least two modules in each of the plurality of types of cycles in the system, displays the generated transitions on the screen, superposes the transitions of transaction occurrence amounts in the first and second types of cycles using the mean value or the maximum value selected by the operator, and generates the transition of the predicted transaction occurrence amount.~~

13. (CANCELLED)

14. (CURRENTLY AMENDED) A resource adjustment apparatus for adjusting an amount of computer resources used in a system having a plurality of modules each comprising

at least one application program, the resource adjustment apparatus comprising:

a storage means for storing data representing ~~a transition of a past transaction occurrence amount~~ and an amount of resources of a module used in the past over a period of time, for each of the plurality of modules, wherein ~~the transaction occurrence amount indicates an offered load and the transition of the past transaction occurrence amount represents a variation of measurement values of the~~ includes a past transaction occurrence amount over a period of time and a past transaction processing amount;

a generation means for

~~obtaining data representing the transition of the past transaction occurrence amount of a target module from the storage means,~~

~~generating respective transitions of the [[past]]transaction occurrence amount [[in]]of the target module for each of a plurality of types of different cycles using the data representing the transition of the~~ based on obtained ~~past transaction occurrence amount of the target module, displaying the generated transitions in the plurality of types of cycles on a screen,~~

~~generating a transition of a predicted transition of transaction occurrence amount of the target module in a specific cycle [[units]]unit by superposing combining the generated transitions of the past transaction occurrence amount in first and second types of corresponding to two or more different cycles selected by an operator from among [[the]]a plurality of types of cycles,~~

~~generating [[a]]an approximate function that expresses a correlation between measurement values of a past a transaction processing amount and measurement values of a corresponding past use resource amount of the target module, wherein the obtained data representing the transition of the past transaction occurrence amount is used as values of the past transaction processing amount in the function, and generating a transition of the past use resource amount by applying the function to the transition of the predicted transaction occurrence amount of the target module, the transition of the past use resource amount indicating a variation of the past use resource amount over a period of time~~ a required resource amount, based on correspondence between the past transaction processing amount and the amount of resource used in the past corresponding to the target module stored in the storage means, and

~~generating a predicted transition of the required resource amount by substituting the transaction occurrence amount of the target module corresponding to the predicted transition of transaction occurrence amount for the transaction processing amount of the approximate~~

function; and

~~an allocation means for using the generated transition of the past use resource amount as a transition of a predicted use resource amount and automatically fluctuating an allocation of resource amount of the target module in accordance with the transition of the predicted~~
~~[[use]]transition of the required resource amount, wherein~~

~~the generation means generates transitions of a mean value and a maximum value of transaction occurrence amounts regarding at least two modules in each of the plurality of types of cycles in the system, displays the generated transitions on the screen, superposes the transitions of transaction occurrence amounts in the first and second types of cycles using the mean value or the maximum value selected by the operator, and generates the transition of the predicted transaction occurrence amount.~~

15. (NEW) The resource adjustment apparatus according to claim 3, wherein
the generation device generates patterns of a transition of the transaction occurrence amount of a plurality of different cycles based on obtained past transaction occurrence amount of the target module, when generating the transitions of the transaction occurrence amount of the target module, and displays the generated patterns onto a screen.